Appendix B

U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Ave., S.E.
Washington, DC 20590

MAR 28 2008

The Honorable Mark V. Rosenker
Chairman
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Dear Mr. Chairman:

Thank you for your December 17, 2007 letter concerning safety recommendations A-07-104 through A-07-109. The recommendations were issued following the National Transportation Safety Board's (NTSB's) investigation of a hazardous materials incident on February 7, 2006, at the Philadelphia International Airport. In that incident, United Parcel Service Company flight 1307 landed at the airport after a cargo smoke indication in the cockpit. The captain, first officer, and a flight engineer evacuated the airplane after landing, sustaining minor injuries. The airplane and most of the cargo were destroyed by a fire. NTSB determined that the probable cause of this accident was an in-flight cargo fire from an unknown source. As a result of this accident, NTSB issued six safety recommendations to the Pipeline and Hazardous Materials Safety Administration (PHMSA). We have initiated the following actions to address the recommendations:

Safety Recommendation A-07-104:

Require aircraft operators to implement measures to reduce the risk of primary lithium batteries becoming involved in fires on cargo-only aircraft, such as transporting such batteries in fire resistant containers and/or in restricted quantities at any single location on the aircraft.

Safety Recommendation A-07-105:

Until fire suppression systems are required on cargo-only aircraft, as asked for in Safety Recommendation A-07-99, require that cargo shipments of secondary batteries, including those contained in or packed with equipment; be transported in crew-accessible locations where portable fire suppression systems can be used.

In response to Safety Recommendations A-07-104 and A-07-105 we are considering rulemaking to require packages of primary and secondary lithium batteries to be loaded aboard a cargo aircraft in such a manner that a crew member or other authorized person can access, handle, or, when size and weight permit, separate such packages from other cargo during flight.

We are also considering a limitation on the total amount of lithium batteries that may be stowed in an inaccessible cargo location. During a recent International Civil Aviation Organization (ICAO) Dangerous Goods Panel Meeting, PHMSA and FAA supported reducing the limits on the quantity of primary and secondary lithium batteries and cells that may be contained in each package offered for transport aboard an aircraft. These new package quantity limits will come into force from January 1, 2009 in the international aviation transport regulations which the vast majority of carriers follow. The new package limits will result in limiting the quantity of batteries or cells that are transported aboard cargo aircraft. We will address these new limits in a rulemaking project that we are currently initiating to align the Hazardous Materials Regulations with the 2009-2010 edition of the ICAO TI. We also plan to conduct a risk assessment, identify additional alternative safety strategies, and assess the costs and benefits of these alternatives in conjunction with our rulemaking initiative to develop and implement the most appropriate solutions to address these recommendations.

We are only just beginning to investigate and study the feasibility of using fire resistant containers for the transport of lithium batteries.

Safety Recommendation A-07-106:

> *Require aircraft operators that transport hazardous materials to immediately provide consolidated and specific information about hazardous materials on board an aircraft, including proper shipping name, hazard class, quantity, number of packages, and location, to on-scene emergency responders upon notification of an accident or incident.*

The Hazardous Materials Regulations require an aircraft operator to: (1) place on the notification of pilot-in-command (NOPC) or in the cockpit of the aircraft a telephone number that can be contacted during an in-flight emergency to obtain information about any hazardous materials aboard the aircraft; (2) retain and provide upon request a copy of the NOPC, or the information contained in it, at the aircraft operator's principal place of business, or the airport of departure, for 90 days, and at the airport of departure until the flight leg is completed; and (3) make readily accessible, and provide upon request, a copy of the NOPC, or the information contained in it, at the planned airport of arrival until the flight leg is completed.

The International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI) provides the following guidance on the transfer of hazardous materials information between aircraft operators and emergency personnel: "In the event of an aircraft accident or serious incident, the operator of an aircraft carrying dangerous goods as cargo must provide information, without delay, to emergency services responding to the accident or serious incident about the dangerous goods on board, as shown on the copy of the information to the pilot-in-command." The majority of operators follow the ICAO requirements through their adoption in the International Air Transport Association (IATA) Dangerous Goods Regulations and therefore will adopt the practice of providing emergency response information quickly without delay. We are considering amending the Hazardous Materials Regulations to require that emergency response information be provided "without delay" and plan to propose this change in an upcoming rulemaking. We are also studying

options for more effectively communicating emergency response information electronically and will be undertaking a research project under the Hazardous Materials Cooperative Research Program to study and demonstrate how electronic transmission of emergency response and shipping information can enhance safety.

Safety Recommendation A-07-107:

Require commercial cargo and passenger operators to report all incidents involving primary and secondary lithium batteries, including those contained in or packed with equipment, that occur either on board or during loading or unloading operations and retain the failed items for evaluation purposes.

We agree that a requirement to report incidents involving lithium batteries transported by air, even those that are otherwise not subject to specific regulatory requirements, will provide useful information on the risks associated with such transportation and possible measures to reduce those risks. We plan to propose to require cargo and passenger operators to report all incidents involving primary and secondary lithium batteries, including those contained in or packed with equipment, in an upcoming rulemaking.

We also agree that an examination of failed batteries and associated electronic devices and equipment will provide valuable data and information as we continue to assess the transportation risks associated with these items. We are working with the FAA and the airlines to establish a cooperative program for effectively securing and preserving evidence and passenger information when incidents occur. We plan to develop a standard protocol to be used by aircraft operators in the event of an incident. This protocol will include procedures for: (1) immediate reporting of the incident to DOT, (2) preservation of the batteries and/or electronic equipment that failed and transfer to appropriate authorities for analysis and evaluation, and (3) obtaining relevant information from passengers and crew members, including contact information for follow-up interviews as necessary. The recent cooperation between Northwest Airlines, PHMSA, FAA and NTSB in response to the February 14, 2008 incident involving a battery powered flashlight fire in a passenger's carry-on bag serves as a positive example of the progress we are making.

Safety Recommendation A-07-108:

Analyze the causes of all thermal failures and fires involving secondary and primary lithium batteries and, based on this analysis, take appropriate action to mitigate any risks determined to be posed by transporting lithium batteries, including those contained in or packed with equipment, on board cargo and passenger aircraft as cargo; checked baggage; or carry-on items.

We recently completed an analysis of the incidents that have occurred involving lithium batteries. Our analysis suggests the following likely root causes of these incidents: (1) external short circuits resulting from exposed battery terminals that come into contact with metal objects; (2) internal short circuits resulting from manufacturing defects, poor battery design, or damage to a battery; (3) improper use resulting in problems with the interaction between the

battery and the device it charges or the battery and its charging device; and (4) a non-compliance situation, such as batteries that were not manufactured to basic industry standards and regulatory requirements, undeclared shipments, or improper packaging.

The analysis of incidents and probable root causes was recently updated to take into account the most recent incidents (see enclosure). Incident information gathered by the Federal Aviation Administration (FAA) on 90 incidents occurring from 1991 to 2008 indicates that: 27 % of the incidents involved lithium batteries and 68 % involved non-lithium batteries. Of the lithium battery incidents, 73 % resulted from short-circuiting (external and internal short combined); 12 % from charging/discharging; 6 % from unintentional activation of devices; and 9 % from other causes (malfunction of devices, improper handling of cargo and unknown causes). For non-lithium batteries, 72 % of the incidents resulted from short-circuiting (mostly external); 11 % from unintentional activation of devices; 4 % from improper handling; and 13 % from other causes (malfunction of devices, improper handling of cargo and unknown causes). We intend to comprehensively analyze the root causes of all incidents involving lithium batteries that overheat or cause fires aboard aircraft. We will use this information to further refine the strategies we have developed to mitigate the risks associated with transporting lithium batteries.

Safety Recommendation A-07-109:

> *Eliminate regulatory exemptions for the packaging, marking, and labeling of cargo shipments of small secondary lithium batteries (no more than 8 grams equivalent lithium content) until the analysis of the failures and the implementation of risk-based requirements asked for in Safety Recommendation A-07-108 are completed.*

Our August 9, 2007 final rule imposed new marking, documentation, and test requirements for small primary and secondary lithium batteries. Small lithium batteries must be tested in accordance with the United Nations Manual of Tests and Criteria to ensure they can withstand conditions encountered during transportation. In addition, each package containing more than 24 lithium cells or 12 lithium batteries must: (1) be marked to indicate that it contains lithium batteries, and special procedures should be followed in the event that the package is damaged; (2) be accompanied by a document indicating that the package contains lithium batteries and special procedures should be followed in the event that the package is damaged; (3) be capable of withstanding a 1.2 meter drop test in any orientation without damage to cells or batteries contained in the package, without shifting of the contents that would allow short circuiting and without release of package contents; and (4) not exceed a gross package weight of 30 kg.

We plan to complete a formal assessment of the costs and benefits associated with eliminating the regulatory exceptions for small lithium batteries and will identify regulatory and other approaches based on that assessment. For example, we will consider whether requiring small lithium batteries to be regulated as Class 9 materials and subject to the full range of packaging and hazardous communication requirements applicable to Class 9 materials will be effective in reducing their risk in transportation, whether the measures taken to date are sufficient and whether other alternative solutions can be equally effective in reducing risk.

PHMSA, in close cooperation with the FAA, led efforts to enhance international regulatory requirements for the transport of lithium batteries, including enhancements to the ICAO TI and the United Nations Recommendations on the Transport of Dangerous Goods. These enhanced requirements will apply to both shippers and carriers and will come into effect on January 1, 2009 in the 2009-2010 edition of the ICAO TI. They will provide for more precise shipping descriptions for lithium metal and lithium-ion batteries, improved packaging standards, and enhanced hazard communication requirements. For instance all packages containing small lithium batteries will be required to be marked with a 100mm x 100mm red hatched handling label (see attached example). The new marking also requires an indication of the type of battery, specific warning statements (pictograms for fragile and flammable potential if damaged), procedures to be followed in the event of an incident (a notification to not load or transport if the package is damaged), and an emergency response telephone number and to be accompanied by a shipping document with the same information. The new ICAO packaging standards for shipments of previously excepted small lithium batteries will require the package to be strong enough to withstand a 1.2 meter drop without damage to the package contents and there will be new limits on the quantity of small batteries permitted in a single package. For lithium-ion batteries, the authorized gross weight was reduced from 30 kg to 10 kg per package. For lithium metal batteries, the authorized gross weight under the exception was reduced from 30 kg per package to 2.5 kg per package. Limiting the total authorized gross weight of individual packages should result in a reduction in the total number of batteries in a consignment.

We believe that the ICAO measures will enhance safety and will consider incorporating the new provisions into the Hazardous Materials Regulations. At the same time, we will work with FAA and others to consider and assess the effectiveness of additional regulatory requirements to address the safety risks associated with transporting lithium batteries on board cargo and passenger aircraft.

Our August 9, 2007 final rule and the additional rulemaking actions we are planning are only one component of the comprehensive program PHMSA and the FAA have implemented to improve the safety of lithium batteries in transportation. We will continue to carry out a comprehensive strategy aimed at reducing the transportation risks posed by batteries of all types. We are planning on hosting a follow on public and private sector stakeholder meeting on April 11, 2008 to identify and agree on the next steps to advance initiatives to reduce risk and enhance safety. We hope you will be able to attend. Our continued actions will include comprehensive reporting and investigation of battery-related incidents; a focus on enhancing industry practices and consensus standards for improved battery, consumer product, and software design; consideration and implementation of improved regulatory standards; focused enforcement; and development and implementation of our public outreach and education campaign. Through an integrated and cooperative approach, we can be most successful in reducing incidents, enhancing safety, and protecting the public.

We will continue to evaluate the hazards posed by lithium batteries in transportation, monitor and investigate incidents to identify root causes and continue to progress our multifaceted initiative involving rulemaking, outreach, enforcement and partnerships to raise public awareness.

This is one of our top safety priorities and we are applying significant resources to minimizing the risk associated with the transportation of lithium batteries as cargo and by passengers aboard aircraft. As we complete our analyses and propose additional requirements, we will keep you informed of our progress. If you have any questions, please contact me at (202) 366-4433.

We request that you classify recommendations A-07-104, 105, 106, 107 and 109 as "Open – Acceptable Action and A-07-108 as "Closed Acceptable Action". We thank you for consideration of our request.

Sincerely,

Stacey L. Gerard
Assistant Administrator/Chief Safety Officer

Enclosures

Appendix B

U.S. Department
of Transportation
Pipeline and Hazardous Materials Safety Administration

1200 New Jersey Ave., S.E.
Washington, DC 20590

MAR 28 2008

The Honorable Mark V. Rosenker
Chairman
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Dear Chairman Rosenker:

Thank you for your January 7, 2008 letter concerning safety recommendations A-08-1 and A-08-2. The recommendations were issued following the National Transportation Safety Board's investigation of a hazardous materials incident on February 7, 2006, at the Philadelphia International Airport. In that incident, United Parcel Service Company flight 1307 landed at the airport after a cargo smoke indication in the cockpit. The captain, first officer, and a flight engineer evacuated the airplane after landing, sustaining minor injuries. The airplane and most of the cargo were destroyed by a fire. NTSB determined that the probable cause of this accident was an in-flight cargo fire from an unknown source. As a result of this accident, NTSB issued two safety recommendations to the Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Aviation Administration (FAA). The recommendations state:

A-08-01

In collaboration with air carriers, manufacturers of lithium batteries and electronic devices, air travel associations, and other appropriate government and private organizations, establish a process to ensure wider, highly visible, and continuous dissemination of guidance and information to the air-traveling public, including flight crews, about the safe carriage of secondary (rechargeable) lithium batteries or electronic devices containing these batteries on board passenger aircraft.

A-08-02

In collaboration with air carriers, manufacturers of lithium batteries and electronic devices, air travel associations, and other appropriate government and private organizations, establish a process to periodically measure the effectiveness of your efforts to educate the air-traveling public, including flight crews, about the safe carriage of secondary (rechargeable) lithium batteries or electronic devices containing these batteries on board passenger aircraft.

We are committed to heightening public awareness related to the hazards associated with the air transportation of lithium batteries, including batteries contained in electronic devices. This is a key component of our comprehensive strategy to enhance safety and reduce incidents. Since February 22, 2007, we have been working with air carriers, battery manufacturers, air travel associations, airline pilot and flight crew associations and other government agencies, including the Transportation Security Administration, to educate the public about potential safety problems and measures that will reduce or eliminate those problems. We agree that our initiative must be highly visible and continuous to be effective and are initiating several approaches to achieve this objective.

One of our most visible programs to promote battery safety is the SafeTravel Web site, which includes guidance and information on how to travel safely with batteries and battery-powered devices. Traffic on the SafeTravel site increased from a hit count of 57,000 in April 2007, to a count of 1,316,000 hits in December 2007. In January, the site recorded 4,608,000 hits, over 3.5 times the December count. In terms of external web mentions of the SafeTravel site by URL name, a mid-November count found about 500 mentions. That number has since grown to over 5,000.

In conjunction with development of the SafeTravel website, we have been working with major airlines to place SafeTravel on their web sites and to include battery safety tips in their in-flight magazines and in their electronic communications with passengers. We are also contacting personal computer and gaming magazines to provide information to their customers; contacting local print and electronic news media sources and major print media contacts in major metropolitan markets in advance of holiday travel; developing magazine drop-in advertisements; and distributed 1,000 media kits and over 30,000 digital information packets with links to the media kit. We have also been working with the Air Transport Association (ATA) and the International Air Transport Association (IATA) to provide SafeTravel information for ticketed passengers and frequent flyers, and to place printed battery safety materials in seat pockets on passenger planes. As a result of our partnership with ATA, many airlines now include battery safety tips on their websites and in travel magazines and are working with us to promote passenger awareness and safety.

We continue to enhance our battery safety outreach efforts and are making progress in additional venues. For example, to increase visibility in the coming months, we initiated a partnership with the Interactive Travel Services Association (ITSA) to encourage large online travel vendors such as Orbitz, Travelocity, Hotwire, and others, to include access to the SafeTravel site in their electronic communications and on their web sites. ITSA has agreed to assist us with enhancing the branding of our safety message and to expand our reach to the traveling public. We have also met with the Association of American Airport Executives (AAAE) and the Airports Council International to discuss placement of awareness materials in airports. We are considering how we can simplify our safety message and effectively communicate it to the common airline passenger so that the message is easily understandable and effective for broadcast through displays in airports. We are working with FAA and TSA to develop a strategy for introducing our hazardous materials and battery safety public safety announcements in airports.

In addition to promoting SafeTravel articles and links to gaming and PC industry magazines, we have directly promoted the web site to "gadget" and travel blogs and online vendors of batteries and electronics. We are also contacting major retailers and distributors with the goal of establishing in-store, electronic, and print media promotion of the battery safety agenda. We recently acquired commitments from Wal-Mart and Radio Shack to support our efforts.

An important component our public awareness campaign is our partnership with the Portable Rechargeable Battery Association (PRBA) and the National Electrical Manufacturers Association (NEMA). Both PRBA and NEMA have published articles in support of battery safety awareness for air travelers. PRMA and NEMA are working with member manufacturers to include a reference to the SafeTravel website on lithium battery retail packaging. They are also working with their members to include SafeTravel information in printed material accompanying rechargeable batteries, such as those used in laptop computers.

We are continuing to leverage our existing industry partnerships in an effort to create a more visible public campaign, in addition to specific news events and press releases. We are participating in major conventions and exhibitions to conduct outreach and increase both industry and consumer awareness of battery safety issues. PHMSA staff recently participated in the 25th International Battery Safety Conference, where more than 350 representatives from the battery and battery powered device manufacturing industry attended, and explained the incidents that have occurred, the steps being taken and invited them to partner with us in expanding the outreach and public awareness campaign. On April 11, 2008, we will meet with stakeholders to discuss partner actions to provide continuous, repeated mass media presence and to roll out a renewed battery safety plan focused on a multi-faceted approach to reducing the risk of the transport of lithium batteries.

We are mindful that NTSB stressed actions to promote lithium battery safety awareness among flight crew specifically, and that Recommendation A-08-2 focuses on more robust assessment of passenger and flight crew awareness and behavior. We are working with ATA, their member airlines, the Airline Pilots Association and the Association of Flight Attendants (AFA) to raise flight crew awareness of measures they can take to avoid incidents as well as how to respond effectively should an incident occur in the cabin.

We have requested available metrics for partner actions, and are coordinating with FAA to continually assess incident data focusing on root causes, in order to gauge any changes in passenger behavior. In the coming year, we will work to capture information about passenger behaviors independent of incidents, and work with FAA and with partners representing airline flight crews to ensure that battery safety and response information is made available. We also will develop a method for evaluating the effectiveness of our efforts to educate the public and flight crews.

We will keep you informed of our progress. Attached is a status report of our actions. We are now compiling monthly status reports to track and measure our effectiveness. If you have any questions, please contact me at (202) 366-4831.

We request that you classify recommendations A-08-1 and A-08-2 as "Open – Acceptable Action." We thank you for consideration of our request.

Sincerely,

Stacey L. Gerard
Assistant Administrator/Chief Safety Officer

Appendix B

U.S. Department
of Transportation
Pipeline and Hazardous Materials Safety Administration

1200 New Jersey Ave., S.E.
Washington, DC 20590

JAN 22 2008

The Honorable Mark V. Rosenker
Chairman
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Dear Chairman Rosenker:

Thank you for your June 27, 2007 letter concerning Safety Recommendations I-07-1 and I-07-02. The recommendations were issued following the National Transportation Safety Board's (NTSB) investigation of a motor coach incident on September 23, 2005, near Wilmer, Texas. The incident involved a motor coach carrying 44 assisted living facility residents and nursing staff. In the incident, the right rear tire hub overheated and caught fire; heavy smoke and fire quickly engulfed the vehicle. The intensity of the fire was increased by the release of medical oxygen from cylinders inside the passenger cabin and luggage compartment of the motor coach. The recommendations state:

I-07-1

Develop standards for the safe transportation of partially pressurized aluminum cylinders by, for example, requiring the addition of temperature-actuated pressure relief devices or the reduction of residual pressure to safe limits, to ensure that such cylinders do not experience overpressure failure when exposed to a fire.

I-07-2

Issue guidance to, at a minimum, the Fraternal Order of Police, International Association of Chiefs of Police, International Association of Fire Chiefs, International Association of Fire Fighters, National Association of State EMS Officials, National Sheriff's Association, and National Volunteer Fire Council, describing the risk of overpressure failure of partially pressurized aluminum cylinders and the steps that should be taken to protect responders and the general public from a vehicle fire when aluminum cylinders are present.

The Pipeline and Hazardous Materials Safety Administration (PHMSA) was pleased to support NTSB's investigation of the Wilmer, Texas accident, particularly with the metallurgical evaluation of the aluminum oxygen cylinders. As you know, we have extensive expertise in this area. Our examination of the cylinders showed that the oxygen contained in the cylinders was released both through the proper operation of the cylinder pressure relief

devices (PRDs) and as a result of cylinder rupture. PHMSA estimates that millions of oxygen cylinders are safely being transported and used every year.

In response to I-07-1, we share your concern about the potential safety hazards posed by the transportation of oxidizing gases such as oxygen in pressurized aluminum cylinders. We recently amended the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to require the set pressure for PRDs installed on cylinders used to transport flammable and poisonous gases to be set at the cylinder test pressure with a tolerance of +0/-10%. This action will extend the time before PRDs actuate without compromising the strength of the cylinder or significantly increasing the probability that the cylinder will burst because of extreme pressure build-up. We have an active rulemaking project to consider applying this requirement to cylinders containing oxidizing gases such as oxygen, which should further enhance safety for both partially pressurized and full cylinders.

PHMSA met with NTSB on October 26 and November 1 and discussed each of the above NTSB recommendations. PHMSA technical experts provided technical rationale (e.g. test data, charts) describing the operation and performance of aluminum cylinders fitted with PRDs used for the transport of oxygen under various fire scenarios. During our meeting, PHMSA presented test data and charts to demonstrate that the use of temperature-activated PRDs would not have reduced the probability of a cylinder rupture in the Wilmer, Texas incident. Our analysis of the factors affecting the effectiveness of PRDs on partially filled cylinders is provided in the enclosed paper. PHMSA will continue to work with the Compressed Gas Association to explore possible options for enhancing oxidizing and flammable gas cylinder survivability in various fire situations.

In response to I-07-02, we will work with the emergency response community to develop and disseminate guidance and training material. Soon after the Wilmer, Texas accident, we developed and issued guidance to bus and train operators to assure that medical oxygen being transported for passengers' personal use is handled and transported safely. We agree that emergency responders should receive guidance and training concerning the risks associated with fires involving aluminum cylinders and the steps that should be taken to protect both emergency responders and the general public when such cylinders are involved in a vehicle fire. We are partnering with the International Association of Fire Chiefs (IAFC) to develop a Hazmat Fusion Center, a shared information network for first responders. A key function of the Hazmat Fusion Center will be information dissemination, including updated hazardous materials training and guidance material for first responders. We are also working with the National Fire Academy to review the compressed gas cylinder training that is part of the Hazardous Material Responder curriculum. We will also work with other emergency response organizations, such as the National Association of State Fire Marshals, and industry groups, such as the Compressed Gas Association, to develop and disseminate guidance and training information.

We request that you classify recommendations I-07-1 and I-07-2 as "Open – Acceptable Action." We thank you for consideration of our request.

If you have any questions, please contact me at (202) 366-4831.

Sincerely,

Stacey L. Gerard
Assistant Administrator/Chief Safety Officer

Enclosure

PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF HAZARDOUS MATERIALS SAFETY

Operation of Temperature-Actuated Pressure Relief Devices
On Partially Filled Cylinders

- In the Wilmer, Texas incident, the use of temperature-actuated pressure relief devices (PRDs) would not have reduced the probability of a cylinder rupture. Since temperature actuated PRDs are designed to vent at 165^0 F or 212^0 F, if these oxygen cylinders were equipped with only temperature-actuated PRDs the oxygen would have released earlier. Even if there were a temperature-actuated PRD designed to operate with partially filled cylinders, the initial release of oxygen from one or more of the partially filled cylinders into the confined space of the luggage bay would have introduced enough oxygen to locally intensify the fire and cause the catastrophic rupture of the adjacent cylinders. Further, in the case of partially filled cylinders that are exposed to a fire, the PRD of each cylinder may operate differently based on each cylinder's proximity to the fire and the means of heat transfer. For example, the PRD on a cylinder exposed to an engulfing fire would operate differently from the PRD on a cylinder exposed to an impinging fire. A temperature activated PRD will not prevent cylinder rupture in the case of localized heating, for instance from flame impingement. In most cases, flame impingement can be avoided by stowing cylinders vertically or, for instance, in the case of a bus or passenger train compartment by separating them from each other. This was one of the recommended practices that we identified in the guidance that PHMSA issued to bus and train operators on June 30, 2006, entitled "DOT Guidance for the Safe Transportation of Medical Oxygen for Personal Use on Buses and Trains." We believe that this guidance will help prevent incidents such as the Wilmer, Texas incident in the future.

- With regard to the recommendation that the cylinder pressures be reduced to limits that would increase transportation safety, PHMSA believes that the function of the PRD on fully or partially charged cylinders would not significantly change the outcome of an accident such as the Wilmer, Texas occurrence. Consumers who use oxygen cylinders are not trained or equipped to discharge oxygen to a predetermined pressure level. The proposal to place this responsibility in the hands of the public would increase the risk of cylinder explosions due to improper cylinder discharging techniques (e.g. use of greasy hands or equipment at the time of discharge).

- Our analysis supports the concept that in some circumstances a partially-filled cylinder can experience overpressure failure before the pressure causes the PRD to activate. However, we believe that in all of these potential cases, the cylinder will fail in ductile fracture rather than brittle fracture. Therefore the potential for danger to the public and emergency responders is significantly less than would be expected from the shrapnel created in a brittle failure. We also believe that a condition for overpressure failure depends upon two major factors, high temperature and exposure to high temperature for an extended period of time. These are temperature regimes in which unprotected

personnel cannot be exposed without harm. In other words, there is less chance of exposure to such overpressure events because of the need to keep a distance from the extremely hot environment.

- Release of oxygen into a superheated environment, or in the presence of an ignition source, presents the greatest danger to personnel. In fact, the function of both the PRD and the cylinder should be to delay the release of oxygen as long as possible in order to provide an opportunity to evacuate people from the scene and give emergency responders the opportunity to extinguish the fire and cool the cylinders. Once the environment surrounding the cylinder(s) becomes superheated, the release of oxygen or the overpressure failure are both dangerous. We firmly believe that the release of oxygen presents the greatest hazard. Finally, designing a PRD to release oxygen just prior to an overpressure failure, although a worthy goal, is one that is extraordinarily complex and expensive. The environment in which such an intelligent PRD would be useful is very rare.

National Transportation Safety Board (NTSB)
and
DOT Office of the Inspector General (OIG):

Open Safety Recommendations on
Pipeline and Hazardous Materials Safety

Appendix C:
Status of Open OIG Recommendations for Pipeline and Hazardous Materials Safety

U.S. Department of Transportation
January 2008

Appendix C: Status of Open OIG Recommendations for Pipeline and Hazardous Materials Safety

OIG Recommendations
"Actions Taken and Needed for Improving Pipeline Safety"
June 14, 2004

Status as of: December 2007

OIG Recommendation to PHMSA	PHMSA Action/Status
Complete actions on the remaining six mandates from legislation enacted in 1992 and 1996.	Five of the six actions are completed. (See "Status of Outstanding Mandates from Legislation Enacted in 1992 and 1996," on page 2). Open.
Require operators of natural gas distribution pipelines to implement some form of pipeline integrity management or enhanced safety program with the same or similar integrity management elements as the hazardous liquid and natural gas transmission pipelines.	PHMSA held several public meetings to gather technical information and published workshop findings on its website. Workgroup findings were presented to the technical advisory committees in December 2005 and June 2006. The PIPES Act requires PHMSA to prescribe minimum distribution integrity management standards by December 31, 2007, which is one of PHMSA's Top 10 regulatory initiatives. PHMSA has developed an NPRM and plans to issue it next year. Open.
Finalize and implement best practices for its internal review process, including procedures to review data quality and to ensure that the operators are providing current, complete, and accurate accident information. PHMSA should also take enforcement action against those operators who are not complying with the reporting requirements.	PHMSA finalized best practices for its internal review process. PHMSA received closure from OIG August 2006. **Completed. Closed.**
Complete actions to close out the remaining five NTSB recommendations identified in this report.	Four of five recommendations are completed. Status of the open recommendation P-01-02 is noted in Appendix A. Open.
Seeks clarification on the delineation of roles and responsibilities between itself and the Department of Energy (DOE).	PHMSA received closure from OIG August 2006. **Completed. Closed.**

Appendix C: Status of Open OIG Recommendations for Pipeline and Hazardous Materials Safety

Pipeline and Hazardous Materials Safety Administration (PHMSA)
Status of Outstanding Mandates from Legislation Enacted in 1992 and 1996

Status as of: December 2007

Pipeline Act and Section	Mandate	Action/Status
1992 *Sec. 108*	Require periodic inspection of all offshore and navigable waterway natural gas pipeline facilities.	Notice of Proposed Rulemaking published December 12, 2003. Final Rule published August 10, 2004 (69 FR 48400). **Completed.**
1992 *Sec. 207*	Require periodic inspection of all offshore and navigable waterway hazardous liquid pipeline facilities.	Notice of Proposed Rulemaking published December 12, 2003. Final Rule published August 10, 2004 (69 FR 48400). **Completed.**
1992 *Sec. 307(b)*	Prepare a report to Congress on a study concerning how to abandon underwater pipelines.	The report has been transmitted to Congress. **Completed.**
1992 *Sec. 109(b)*	Define and regulate natural gas gathering lines.	Notice of Proposed Rulemaking published February 4, 2004. Supplemental Notice of Proposed Rulemaking was published on October 3, 2005. Final Rule published March 15, 2006 (71 FR 13289). **Completed.**
1992 *Sec. 208(b)*	Define and regulate hazardous liquid gathering lines.	PHMSA discussed defining and regulating hazardous liquid gathering lines at the Advisory Committee Meetings in December 2004 and December 2005. PHMSA published a Notice of Proposed Rulemaking on September 6, 2006. The comment period closed November 6, 2006. PHMSA plans to issue a final rule in early 2008. Open.
1996 *Sec. 4(e)(1)*	To the extent possible, new and replacement natural gas transmission pipelines, or hazardous liquid pipeline facilities, must accommodate internal inspection devices.	Notice of Proposed Rulemaking published September 30, 1994. Final Rule published June 28, 2004 (69 FR 36024). **Completed.**

Appendix C: Status of Open OIG Recommendations for Pipeline and Hazardous Materials Safety

OIG Recommendations
"New Approach Needed in Managing FAA's Hazardous Materials Program"
November 19, 2004

Status as of: December 2007

OIG Recommendation to FAA	FAA Action/Status
Institute guidelines and timeframes for conducting hazardous materials investigations, conducting legal reviews, and issuing Notices of Proposed Civil Penalties through the coordinated efforts of the Hazardous Materials Division and Office of the Chief Counsel.	On September 26, 2005, FAA issued Change 31 to Order 2150.3A instituting guidelines and timeframes for completing investigation and enforcement cases. FAA will further amend Order 2150.3A (as Order 2150.3B). FAA Order 2150.3B was signed on October 1, 2007. **Completed. Closed.**
Implement a nationwide plan to distribute equitably the number of hazardous materials enforcement cases per attorney.	FAA has implemented a plan. Regional attorneys are distributing cases equitably. **Completed. Closed.**
Develop and implement alternate means of administering hazardous materials enforcement cases, such as the ticketing system used by PHMSA.	FAA's Notice of Proposed Rulemaking is in clearance. Open
Finalize and implement the FAA voluntary disclosure reporting program. FAA needs to take a systematic approach in effectively managing the program, to include disseminating all useful information to the air carriers, hazardous materials shippers, and DOT's Operating Administrations with hazardous materials oversight and enforcement responsibilities.	FAA published a voluntary disclosure advisory circular on January 31, 2006. **Completed. Closed.**
Implement a pilot project with the Transportation Security Administration (TSA) and one or more air carriers to determine the effectiveness and cost of an automated operating system to record and process violations of hazardous materials regulations discovered during the screening of passengers' carry-on and checked baggage. In the interim, collaborate with TSA to implement system-wide procedures for notifying FAA of hazardous materials incidents associated with passengers' carry-on baggage.	FAA and TSA have established a system to electronically coordinate information on hazardous materials abandoned at security checkpoints. **Completed. Closed.**

Appendix C: Status of Open OIG Recommendations for Pipeline and Hazardous Materials Safety

Issue an advisory circular notifying all air carriers that they must report to FAA all unauthorized hazardous materials found in passengers' checked baggage and take enforcement actions against those air carriers not complying with the reporting requirements.	PHMSA made regulatory changes on October 1, 2006, requiring air carriers to give FAA the address of the violator. FAA's Advisory Circular 121-38, issued on January 17, 2007, implemented this recommendation. **Completed. Closed.**
Develop and implement a covert testing program to evaluate air carriers' compliance with the required acceptance procedures for hazardous materials shipments by air. Preferably, a joint program would be established in which FAA works with TSA.	FAA drafted a set of targeted covert Hazmat testing protocols and requested an exemption from the HMR to conduct covert tests using no hazardous materials. PHMSA denied FAA's request on safety grounds. PHMSA maintains that allowing a package that is mis-described and labeled or packaged on a passenger-carrying aircraft could adversely affect a pilot's decision during an inflight emergency and possibly jeopardize the health and safety of passengers and crew. **Completed. Closed.**

National Transportation Safety Board (NTSB)
and
DOT Office of the Inspector General (OIG):

Open Safety Recommendations on
Pipeline and Hazardous Materials Safety

Appendix D:
Responses to OIG Recommendations

U.S. Department of Transportation
January 2008

Appendix D: Responses to OIG Recommendations

This Appendix includes responses to the OIG on the open OIG recommendations as requested by the Norman Y. Mineta Research and Special Programs Improvement Act.

Recommendations	Date Recommendation Issued	Documentation at Pages:
Actions Taken and Needed for Improving Pipeline Safety	06/14/04	2-14
New Approach Needed in Managing FAA's Hazardous Materials Program	11/19/04	15-20

Appendix D

U.S. Department of Transportation

Research and Special Programs Administration

Memorandum

Date JUN - 3 2004 Reply to Attn. of:

Subject: Comments on Draft Report on Actions Taken and Needed for Pipeline Safety Project No. 03B3006B000

From: Samuel G. Bonasso
Deputy Administrator

To: Kenneth M. Mead
Inspector General

Thank you for the opportunity to comment on the contents and conclusions in the Office of the Inspector General's (OIG) Draft Report on Actions Taken and Needed for Improving Pipeline Safety (Project No. 03B3006B000) as provided to Deputy Administrator, RSPA by memorandum of May 4, 2004. We appreciate the care and attention that the OIG audit staff has devoted to understanding the pipeline safety program. We agree in general with the OIG's seven recommendations and have work underway to address all outstanding issues. See attachment for proposed actions and completion dates. There is one important issue that we believe should be clarified.

The draft report stated that "[o]ne segment of the pipeline system remains excepted from integrity management safety mandates." The statement is misleading in that it implies that OPS has taken action to "except" gas distribution pipelines from the integrity management programs. The fact is, Federal law only mandated that transmission pipelines be assessed, so the Office of Pipeline Safety (OPS) only addressed transmission pipelines first. We agree that the safety issues posed by distribution pipelines need to be addressed through an appropriate integrity management program requirement once we have some experience with gas transmission pipelines. We have always known that distribution pipelines were the next step in the integrity management program.

In fact in 2002, before the passage of the Pipeline Safety Improvement Act of 2002 (PSIA), we challenged the industry to develop a framework for gas distribution integrity management. The OPS gave presentations to two industry groups: the first was on May 13, 2002 at the American Gas Association (AGA) Operations Conference, and the second on August 20, 2002 at the American Public Gas Association (APGA) Annual Conference. Please reference the attached presentations. On slide 15 of the presentation to the AGA and on slide 14 of the presentation to the APGA, OPS discussed the need to develop a framework for gas distribution integrity management programs.

In these presentations, OPS challenged the membership of the AGA and the APGA to take the lead in vetting parameters for a program. OPS will then review these concepts along with its own findings at the appropriate time when we take action within the Department on an integrity management program for distribution pipelines. This is a proven approach that OPS employs to gain buy-in from industry when improvements are needed.

In answer to the OPS challenge, the American Gas Foundation formed the Distribution Infrastructure Government-Industry Group (DIGIG). On May 14, 2004, OPS provided the OIG audit team a copy of the charter (see attached). The DIGIG consists of industry representatives and State regulators (our interstate partners) with OPS as an observer. It evaluates safety performance, current operating and regulatory practices, and emerging technologies for gas distribution pipelines. The DIGIG is expected to provide guidance on how to apply integrity management principles to gas distribution systems. OPS plans to initiate pilot programs as appropriate to provide practical demonstration of these principles.

I hope these comments are helpful in preparation of the final report. In addition, we are providing some suggestions for miscellaneous editorial corrections as an attachment. If I can provide further information or assistance, please contact me or James Wiggins, Director of Policy and Program Support at (202) 366-4978.

Attachments (5)

OPS RESPONSE TO DRAFT REPORT RECOMMENDATIONS – PROPOSED ACTIONS AND COMPLETION DATES

1. Completes its actions on the remaining six mandates from legislation enacted in 1992 and 1996.

Response: Please note updated actions and completion dates in the status column of the following table.

Status of Outstanding Mandates from Legislation Enacted in 1992 and 1996

Pipeline Act & Section	Mandate	Status
1992 *Sec. 108*	Require periodic inspection of all offshore and navigable waterway natural gas pipeline facilities	Notice of Proposed Rulemaking (NPRM) published and awaiting public comment. Final rule expected August 2004.
1992 *Sec. 207*	Require periodic inspection of all offshore and navigable waterway hazardous liquid pipeline facilities	NPRM published and awaiting public comment. Final rule expected August 2004.
1992 *Sec. 307(b)*	Prepare a report to Congress on a study concerning how to abandon underwater pipelines	Report is in clearance process. Report expected July 2004.
1992 *Sec. 109(b)*	Define and regulate natural gas gathering lines	NPRM comments under discussion, supplemental notice expected December 2004.
1992 *Sec. 208(b)*	Define and regulate hazardous liquid gathering lines	OPS is coordinating with the states and industry to develop a definition, NPRM expected December 2004.
1996 *Sec. 4e(1)*	To the extent possible, new and replacement natural gas transmission pipelines, or hazardous liquid pipeline facilities, must accommodate internal inspection devices	Final rule issued in April 1994, but enforcement was stayed by OPS for some gas transmission pipelines in rural areas; final rule on the stay is expected in December 2004.

2. OPS should require operators of natural gas distribution pipelines to implement some form of pipeline integrity management or enhanced safety program with the same or similar integrity management elements as the hazardous liquid and natural gas transmission pipelines.

Response: Before the passage of the Pipeline Safety Improvement Act of 2002 (PSIA) OPS challenged the industry to develop a framework for gas distribution integrity management programs. OPS made these challenge to the American Gas Association on May 13, 2002 and to the American Public Gas Association on August 20, 2002. The industry, state and Federal Regulators are now working to develop a natural gas distribution integrity management program. A public workshop to discuss concepts an effective gas distribution integrity management program is planned for December 2004.

3. Completes its internet-based system for monitoring its R&D projects' costs, schedules, and performance.

Response: OPS will finalize its internet-based system in conjunction with the publication of the fourth R & D Broad Agency Announcement. Expected completion is October 2004.

4. Finalizes and implements "best practices" for its internal review process, including procedures to review data quality, to ensure that the operators are providing current, complete, and accurate accident information. OPS should also take enforcement against those operators who are not complying with the reporting requirements.

Response: OPS is currently pilot testing new procedures with all of the regional offices. Each region is reviewing monthly status reports and the data team is holding quarterly meetings to develop best practices. OPS currently enforces accident reporting requirements. Expected completion of "best practices" is March 2005.

5. Completes its actions to close out the remaining five NTSB recommendations identified in this report.

Response: Please note updated statements on actions and completion dates in the status column of the following table.

NTSB RECOMMENDATIONS THAT REMAIN OPEN SINCE OIG'S MARCH 2000 REPORT

Recommendation No. and Date Issued	Action Needed	Status
P-90-29 Issued 10/1/90	Develop and implement, with the assistance of the Minerals Management Service, the U.S. Coast Guard, and the U.S. Army Corps of Engineers, effective methods and requirements to bury, protect, inspect the burial depth of, and maintain all submerged pipelines in areas subject to damage by surface vessels and their operations.	OPS has taken acceptable action. Close-out letter is at the NTSB for review.
P-98-25 Issued 10/16/98	Require pipeline system operators to precisely locate and place permanent markers at sites where their gas and hazardous liquid pipelines cross navigable waterways.	OPS is working with the Common Ground Alliance on a best practice. OPS expects to request closure December 2005.
P-01-02 Issued 6/22/01	Require that excess flow valves be installed in all new and renewed gas service lines, regardless of a customer's classification, when the operating conditions are compatible with readily available valves.	OPS continues to work on this controversial issue. OPS plans to publish a NPRM in the summer of 2005.
P-02-01 Issued 8/2/02	Establish quantitative criteria, based on engineering evaluations, for determining whether a wrinkle may be allowed to remain in a pipeline.	OPS has taken acceptable action. Close out letter is at the NTSB for review.
P-02-04 Issued 10/11/02	Develop and issue guidance to pipeline operators on specific testing procedures that can be used to approximate actual operations during the commissioning of a new pumping station or the installation of a new relief valve and determine during annual tests whether a relief valve is functioning properly.	OPS expects the NTSB will close recommendation based on issuance of a valve testing guidance bulletin. OPS expects to publish a bulletin and request closure in November 2004.
P-03-01 Issued 2/27/03	Revise 49 Code of Federal Regulations Part 192 to require that new or replaced pipelines be designed and constructed with features to mitigate internal corrosion.	OPS is evaluating rulemaking options. OPS estimated publication of a NPRM in the summer of 2005.

P-03-03 Issued 2/27/03	Evaluate OPS's pipeline operator inspection program to identify deficiencies that resulted in the failure of inspectors, before the Carlsbad, New Mexico, accident, to identify the inadequacies in the El Paso Natural Gas Company's internal corrosion control program. Implement the changes necessary to ensure adequate assessments of pipeline operator safety programs.	This recommendation is addressed by gas integrity management inspection protocols, inspector training and new NACE standards for internal corrosion. OPS expects to request closure in October 2004.

6. Implements a formal internal policy for responding to NTSB recommendations so that key safety recommendations are addressed completely and in a timely manner in accordance with DOT policy.

Response: OPS is using both the DOT and RSPA policies and procedures for addressing NTSB recommendations.

7. Petition the DOT, through RSPA, to execute a Memorandum of Agreement or Memorandum of Understanding with DHS, formalizing the security roles and responsibilities of OPS and TSA. OPS should also seek clarification on the delineation of roles and responsibilities between itself and DOE.

Response: There is no need for OPS to petition the Department for establishment of a MOU with DHS. The Deputy Secretaries of DOT and DHS have already agreed to produce an MOU between DOT and DHS on security matters. It is to be a general agreement supplemented with annexes on specific topics, with the first three being rail security; transit security and hazmat security. A future annex on pipeline security will follow. This is a Departmental priority to be completed as soon as practical. OPS will clarify its roles and responsibilities regarding security with DOE by November 2004.

U.S. Department of Transportation
Research and Special Programs Administration
Coordination
Programs
Performance
James K. O'Steen
Dep. Assoc. Admin.
May 13, 2002

U.S. Department of Transportation

Research and Special Programs Administration

Gas Distribution

- Outside force damage major cause of pipeline failure
- Time to address integrity management program for distribution systems
- Need to develop a framework for distribution IMP
- Damage prevention will be a major part
- Industry efforts in operational excellence have been great
- Challenge you to reconstitute quality teams to address distribution IMP framework

U.S. Department of Transportation
Research and Special Programs Administration
Preparation
James K. O'Steen
Dep. Assoc. Admin. for P
Performance
August 20, 2002

U.S. Department of Transportation

Research and Special Programs Administration

Gas Distribution Integrity Management

- Need to develop a framework for a distribution IMP
- Outside force damage major cause of pipeline failure
- Damage prevention will be a major part
- Industry efforts in operational excellence will also play a major part
- Challenge you to start addressing a distribution IMP framework

DISTRIBUTION INFRASTRUCTURE GOVERNMENT-INDUSTRY GROUP

CHARTER

Overview

The American Gas Foundation (AGF) has commissioned a study to assess the Nation's gas distribution infrastructure by evaluation of safety performance, current operating and regulatory practices and emerging technologies.

Mission & Scope

The Distribution Infrastructure Government-Industry Group (DIGIG) is established to enable Operators of natural gas distribution facilities and government authorities overseeing natural gas pipeline safety to provide direction, review, and endorsement to the AGF study. The outcome will be communicated to the U.S. Department of Transportation (DOT) along with recommendations on how to proceed.

Organization

The DIGIG shall be comprised of equal number of Members and Observers from industry and the states, and a secretary to attend to the group's matters. In addition, DOT will participate as Observers.

There shall be an Industry Co-chair and a State Co-chair, selected from among the Members to serve indefinite terms.

Both industry and state Members represent respective constituencies.

Membership

State Members shall be selected from the National Association of Pipeline Safety Representatives (NAPSR) and the National Association of Regulatory Utility Commissioners (NARUC).

Industry Members shall be selected from sponsor utilities of the American Gas Foundation, American Gas Association (AGA), and the American Public Gas Association (APGA).

Each Observer may be selected at the discretion of the DIGIG Member group the Observer represents.

With the approval of the member group Co-chairs, Observers may serve as Alternates when a given Member is absent.

Committee Process
Meetings shall be held as often as necessary as determined by the Members.

A consensus process shall be used to agree on specific items brought before the DIGIG for consideration. Consensus is defined here as: *A decision which all Members or designated Alternates present at the meeting can agree upon. The decision may not be everyone's first choice, but the group finds it an acceptable means of addressing the issue presented.*

All Members' opinions are equal.

Observers may comment, but not participate in the consensus process unless representing Members as designated Alternates.

Amendments
Amendments to this Charter shall be approved by the Members. All proposed amendments shall be adopted by consensus.

Sunset
Dissolution of the DIGIG as an organization shall be by consensus of its Members.

ATTACHMENT

Miscellaneous Editorial Comments on *Draft Report on Actions Taken and Needed for Improving Pipeline Safety* (Project No. 03B3006B000).

1. The term "natural gas" should be changed to "gas" throughout the report. Part 192 applies to all gas pipelines, whether carrying natural gas, liquefied petroleum gas, or some other flammable, toxic, or corrosive gas.

2. Reference: page iv line 3
"The baseline assessment period for these hazardous liquid pipeline operators will not end until March 2008"
OPS comment: OPS suggests that the term "baseline inspection" be substituted for "baseline assessment" to more correctly characterize the requirement. Under the integrity management rules for hazardous liquid pipeline operators, we are requiring inspections to establish a baseline assessment of pipe conditions.

3. Reference: page xi line 35 and onto page xii
". . . unlike its pipeline safety program, OPS' security guidance in not mandatory."
OPS comments: Under HSPD-7 the Department of Homeland Security (DHS) is the lead agency for ensuring the security of critical transportation infrastructure.

U.S. Department
of Transportation
Federal Aviation Administration

Memorandum

Subject: **INFORMATION:** New Approaches Needed in Managing FAA's Hazardous Materials Program, Federal Aviation Administration

Date: SEP 30 2004

From: Assistant Administrator for Financial Services and Chief Financial Officer

Reply to Attn. of:

To: Principal Assistant Inspector General for Auditing and Evaluation

Thank you for your August 20 Memorandum and the attached draft audit report of the Federal Aviation Administration's Hazardous Materials Program. I appreciate the additional time you have allowed for us to provide written comments concerning the report and the recommendations.

The draft report has been reviewed by the Chief Counsel and the Assistant Administrator for Security and Hazardous Materials. A copy of our comments is attached. We have also provided an electronic word version of the comments for inclusion in the final report as you requested.

Should you have any questions or need additional information, please contact Anthony Williams on 267-9000.

Ramesh K. Punwani

Attachment

Federal Aviation Administration's (FAA) Response to the Office of Inspector General's Draft Report on New Approaches Needed in Managing FAA's Hazardous Materials (HAZMAT) Program

OIG Recommendation 1: Institute guidelines and timeframes for conducting HAZMAT investigations, conducting legal reviews, and issuing Notices of Proposed Civil Penalties through the coordinated efforts of the Hazardous Materials Division and Office of the Chief Counsel (AGC).

FAA response: Concur. The Assistant Administrator for Security and Hazardous Materials, ASH-1 will implement new timeframe goals for completion of legal enforcement HAZMAT investigations. The Chief Counsel is implementing new timeframe goals for initiating and completing HAZMAT enforcement cases. We expect that these goals will be adopted by December 31.

We understand that the guidelines referenced in this recommendation pertain to recommendation 3. We will adopt guidelines as part of our response to that recommendation. We recommend, therefore, that the reference to acceptable guidelines in this recommendation be deleted.

OIG Recommendation 2: Implement a nationwide plan to distribute equitably the number of HAZMAT cases per attorney.

FAA response: Concur. AGC is implementing a plan to more evenly distribute the HAZMAT cases among the FAA legal offices. This will be accomplished by December 31. ASH is implementing a plan to have appropriate cases originated in the region of the shipper; this will have the effect of more evenly distributing the case load among the regional offices. The Office of Security and Hazardous Materials expects to initiate a policy to distribute certain legal enforcement cases from the region where they are reported and initially investigated to the region where the shipper is located by December 31.

OIG Recommendation 3: Develop and implement alternate means of administering HAZMAT enforcement cases, such as the ticketing system used by Research and Special Programs Administration (RSPA).

FAA response: Partially Concur. The FAA has had successful experience with a streamlined enforcement process for certain cases involving passengers who carried weapons in their baggage. See 14 CFR § 13.29. Under this procedure the security division manager, not the attorney, issued notices of violation, which provided violators with the option of having his or her penalty reduced by 50 percent if the violator paid the penalty within 30 days. We expect to propose a similar alternative system for certain passenger HAZMAT violation cases. In addition, we will consider whether such an approach can also be used in other types of violations that are factually straightforward and involve relatively low-dollar penalties. Implementation

of an alternative process will require rulemaking. We expect to have a draft Notice of Proposed Rulemaking in agency coordination by September 30, 2005.

OIG Recommendation 4: Finalize and implement the voluntary disclosure reporting program. FAA needs to take a systematic approach in effectively managing the program, to include disseminating all useful information to the air carriers, HAZMAT shippers, and Department of Transportation's Operating Administrations with HAZMAT oversight and enforcement responsibilities.

FAA response: Concur. The FAA has drafted a voluntary disclosure advisory circular that would apply to certain air operator requirements. The draft advisory circular is now being coordinated with other concerned lines of business within FAA, such as the Chief Counsel's Office and the Flight Standards Service. We expect to publish this advisory circular by December 31.

OIG Recommendation 5: Implement a pilot project with the Transportation Security Agency (TSA) and one or more air carriers to determine the effectiveness and cost of having an automated operating system to record and process violations of the HAZMAT regulations discovered during the screening of passengers' carry-on and checked baggage. In the interim, FAA should collaborate with the TSA to implement system-wide procedures for notifying FAA of HAZMAT incidents associated with passengers' carry-on baggage.

FAA response: Concur. Airport security screeners are not conducting a search for hazardous materials. They are conducting a search for weapons and prohibited items. The FAA does not support any initiative that would divert the attention of airport security screeners from their efforts to locate and remove weapons and other prohibited items.

The TSA issued an interpretative rule [68 FR 9902] that clarifies the types of property considered to be weapons, explosives and incendiaries. The TSA interpretative rule also advised passengers concerning the types of items prohibited by the Hazardous Materials Regulations (HMR). As part of their security duties, screeners do notice prohibited hazardous materials in plain view. Under an interpretation issued by the Department of Transportation, passengers who present prohibited hazardous materials at the screening checkpoint are in violation of the HMR. [68 FR 9735].

The FAA and the TSA currently have a Memorandum of Agreement (MOA) that includes a Hazardous Materials Annex that calls for the agencies to establish procedures for a referral process when the TSA finds a passenger with prohibited HAZMAT. While the FAA has received some referrals from the TSA, the TSA has not yet agreed to procedures to make such referrals routinely. FAA's Office of Security and Hazardous Materials is participating in an agency-wide initiative to revise the existing MOA with the Department of Homeland Security (DHS) and TSA. As part of this initiative, the FAA is seeking direct access to the hazardous materials

information contained in the Dangerous Goods module of TSA's Performance and Reports Information System (PARIS). PARIS is the database that records the TSA's inspection and investigation findings. This Dangerous Goods module identifies passengers who have abandoned the most observable and dangerous hazardous materials at the security checkpoint. The FAA will raise the possibility of a pilot project to gain access to the relevant PARIS data as part of the initiative to revise the MOA with TSA/DHS. The Office of Security and Hazardous Materials expects to complete discussions with TSA/DHS concerning automated access to HAZMAT information about passenger's carry-on baggage by December 31.

OIG Recommendation 6: Issue an advisory circular notifying all air carriers that they must report to FAA all unauthorized HAZMAT found in passengers' checked baggage and take enforcement actions against those air carriers not complying with the reporting requirements.

FAA response: Concur. Concerning suspected unauthorized hazardous materials noticed by security screeners in checked baggage, these screeners bring such items to the attention of the respective air carrier for resolution. Air carriers, in turn, report these items to the FAA. Currently, the FAA is receiving over 1,000 such reports a month. In response to these reports, FAA has taken two actions. First, we have developed a database entry screen for field agents to enter and prioritize the details of these reports. Instances involving more serious HAZMAT are individually investigated while an automated outreach, educational notice is generated to the passengers responsible for the instances involving less serious HAZMAT. Approximately 2,000 reports have been processed in this manner. However in many cases, air carriers advise that they do not have, or cannot provide, the passenger's address. With tickets purchased over the internet, carriers report they do not always know their passenger's address. In addition, individual air carriers and the Air Transport Association have reported that they cannot always report the passenger's address to the FAA because of privacy concerns. Therefore, the FAA is coordinating with RSPA to amend the HMR to add a requirement for air carriers to provide the address of the passenger responsible for the incident, if they know it or can reasonably obtain it.

Additionally, the FAA has taken several actions to remind air carriers that they must comply with the requirements to report violations mandated by 49 CFR 175.31. The FAA conducts over 3,000 hazardous materials assessments of air carrier airport stations annually. As part of the assessment, FAA agents are required to ask airline representatives if they are aware of the HAZMAT reporting requirements and enter their response into the computerized inspection results. As indicated above, since the advent of 100% checked baggage security screening, FAA is currently receiving over 1,000 reports of unauthorized HAZMAT in checked luggage from air carriers each month. TSA's procedures call for security screeners who suspect unauthorized hazardous materials in checked baggage to notify the appropriate air carrier and to record the event in a log. FAA field agents check these TSA logs at airports and compare it to the reports received from air carriers. Occasionally, the

logs record an incident that was not reported to the FAA. In many of these cases, TSA screeners are recording suspected HAZMAT that is actually allowed under 49 CFR 175.10, and therefore no air carrier report to FAA is necessary. In a few cases, the logs list unauthorized HAZMAT, not reported to FAA as required. Recently, in several isolated cases, FAA sent Letters of Investigation to air carriers that apparently did not report unauthorized HAZMAT that were recorded by security screeners in various TSA logs. Air carriers have maintained that they are not always notified by screeners, as the TSA procedures call for, and that they are not allowed to review the logs themselves. Several of these cases are still under investigation by the FAA. The FAA will take enforcement action in accordance with FAA Order 2150.3A if these investigations find that reporting violations were committed.

Upon completion of the on-going discussions with TSA concerning the MOA and RSPA's rulemaking efforts, FAA will draft and issue an Advisory Circular clarifying the air carrier's HAZMAT reporting requirements. RSPA has notified the FAA that its timeline to complete a final rule revising these discrepancy reporting requirements and other requirements for the transport of hazardous materials by aircraft is February 2006. Given this timeline, the Office of Security and Hazardous Materials expects to issue an Advisory Circular by May 31, 2006.

OIG Recommendation 7: DOT's Office of Safety, Energy and Environment establish and implement a process for resolving HAZMAT regulatory disputes between the FAA and RSPA to ensure that the unique safety requirements for shipments of HAZMAT by air are being effectively addressed.

(Response provided by OST)

Other comments on the report:

The draft report notes the extent of the reduction in civil penalties from the amount recommended by the inspectors and the attorneys. While we do not dispute the accuracy of the OIG's findings in this regard, we believe the findings should be placed in context, and request that the final report reflect this context.

Penalties recommended by the inspectors are made before the attorney evaluates the sufficiency of the evidence that supports an alleged violation and the inspector's application of sanction guidance. The amount recommended by the inspector or proposed by the attorney both occur before an informal conference is held. It is at the informal conference that the FAA often becomes aware of circumstances that constitute a defense to an alleged violation or that warrant mitigation of the penalty (e.g., corrective action). Likewise, it is often after the penalty has been proposed that the agency is able, after receiving information from the alleged violator, to conduct the statutorily-mandated evaluation of the violator's ability to pay, which frequently results in a reduction from the recommended penalty.

Appendix D

U.S. Department of Transportation
Office of the Secretary of Transportation

Memorandum

Date: September 21, 2004

Subject: **Action:** Response to Draft Report on New Approaches Needed in Managing FAA's Hazardous Materials Program

From: Emil H. Frankel
Assistant Secretary for Transportation Policy

To: Alexis M. Stefani
Principal Assistant Inspector General
for Auditing and Evaluation

Within the office of the Assistant Secretary for Policy, the Office of Safety, Energy and Environment (OSEE) is the focal point for intermodal DOT hazardous materials (hazmat) issues. This office is working to foster a department-wide approach to implementing hazardous materials programs. One office responsibility is to facilitate the resolution of disagreements among operating administrations on hazmat issues where they have been unable to reach a mutually agreed on solution. OSEE was already aware of the differences between FAA and RSPA cited in the OIG draft report, and has initiated a process to resolve outstanding hazmat disputes and reach agreement on appropriate actions necessary to fully and appropriately protect the public and the transportation infrastructure.

RECOMMENDATION AND RESPONSE

Recommendation 7: Establish and implement a process for resolving HAZMAT regulatory disputes between FAA and RSPA to ensure that the unique safety requirements for shipments of HAZMAT by air are being effectively addressed.

Response: Concur. OST Policy, FAA, and RSPA, are developing a plan of action that will identify the steps needed to resolve the areas of concern identified in the OIG draft report. This process will be used as a model to address any future disagreements between the operating administrations. We anticipate having this process formalized by February 2005, completing this recommendation.